

What is claimed is:

1. A head gear apparatus comprising:
a helmet configured to be supported on the head of a wearer;
at least two airflow passageways defined by said helmet, a first one of said passageways arranged to direct airflow across the back of the wearer and a second one of said passageways arranged to direct airflow across the face of the wearer when said helmet is supported on the head of the wearer; and
a fan supported by said helmet to direct airflow through said at least two airflow passageways.
2. The head gear apparatus according to claim 1, wherein at least one of said airflow passageways includes means for adjusting the airflow through said at least one passageway.
3. The head gear apparatus according to claim 2, wherein said first one and said second one of said passageways include means for adjusting the airflow through said corresponding passageway.
4. The head gear apparatus according to claim 1; wherein:
said helmet is configured to support said fan at the back of the wearer's head when the helmet is supported on the wearer's head; and
said first airflow passageway includes a conduit defined by said helmet extending from said fan to the forehead of the wearer.
5. The head gear apparatus according to claim 4, wherein said second airflow passageway includes a plurality of portals defined in said helmet adjacent said fan, said portals arranged to direct airflow across the back of the wearer.

6. The head gear apparatus according to claim 5, wherein at least a number of said plurality of portals includes a baffle configured to direct air flow through the portal in a pre-determined direction.

7. The head gear apparatus according to claim 6, wherein the pre-determined direction is onto the neck of the wearer when the helmet is supported on the head of the wearer.

8. The head gear apparatus according to claim 5, wherein said second airflow passageway includes means for adjusting the airflow through said at least one passageway.

9. The head gear apparatus according to claim 8, wherein said means for adjusting the airflow includes a louver plate disposed within said helmet between said plurality of portals and said fan, said louver plate defining a plurality of louver openings corresponding to said plurality of portals, said louver plate slidable within said helmet to adjustably overlap at least a portion of said portals.

10. The head gear apparatus according to claim 5, wherein said first airflow passageway includes second means for adjusting airflow through said first passageway.

11. The head gear apparatus according to claim 1, further comprising an airflow adjustment mechanism configured to adjust the velocity of air flow traveling through said first one of said passageways, wherein:

reduction of the velocity of air flow traveling through said first one of said passageways with said airflow adjustment mechanism causes an increase in the velocity of air flow traveling through said second one of said passageways.

12. The head gear apparatus according to claim 1, further comprising a battery for powering said fan, said battery being a lithium ion type battery.

13. A head gear apparatus comprising:
a helmet configured to be supported on the head of a wearer;
a number of airflow passageways defined by said helmet to direct airflow across the body of the wearer;
a fan supported by said helmet to direct airflow through said number of airflow passageways; and
a strap assembly including;
a head band configured to be supported on the head of the wearer;
and
a strap arrangement connected between said head band and said helmet so that said helmet hangs from said strap arrangement at locations on opposite sides of the wearer's head.

14. The head gear apparatus according to claim 13, wherein said strap arrangement includes:
a crown strap that extends along each side of the wearer's head; and
an attachment tab extending from said crown strap on each side of the wearer's head, said attachment tab connected to said helmet.

15. The head gear apparatus according to claim 14, wherein said strap arrangement includes:
a pair of crown straps extending along opposite sides of the wearer's head and sized to meet over the top of the wearer's head; and
a fastener disposed between said pair of crown straps to fasten said straps together at the top of the wearer's head.

16. The head gear apparatus according to claim 14, wherein said crown strap defines a cut-out and said attachment tab is positioned within said cut-out.

17. The head gear apparatus according to claim 16, wherein a top portion of said attachment tab is integral with said crown strap and an opposite bottom portion of said attachment tab is connected to said helmet.

18. A head gear apparatus comprising:
a helmet configured to be supported on the head of a wearer;
a number of airflow passageways defined by said helmet to direct airflow across the body of the wearer;
a fan supported by said helmet to direct airflow through said number of airflow passageways; and
a strap assembly including;
a head band configured to be supported on the head of the wearer;
a strap arrangement connected between said head band and said helmet to support said helmet; and
an occipital support at least partially positioned below said helmet and configured to bear against the occiput of the wearer when the head band is positioned on the head of the wearer.

19. The head gear apparatus according to claim 18, wherein said occipital support is connected to said head band.

20. The head gear apparatus according to claim 18, wherein said occipital support is adjustably connected to said head band to permit adjustment of the occipital support across the distance between the head band and the occiput of the wearer.

21. The head gear apparatus according to claim 18, wherein said occipital support includes a lattice configuration.

22. A head gear apparatus comprising:
a helmet configured to be supported on the head of a wearer;
a face shield mounted to said helmet, said face shield defining a substantially clear viewing area for the wearer; and
at least one layer of a substantially transparent film removably mounted on said face shield over said viewing area.

23. A head gear apparatus comprising:
a helmet configured to be supported on the head of a wearer, said helmet including a chin bar extending adjacent the chin of the wearer when the helmet is supported on the head of the wearer, said helmet defining a face opening above said chin bar;
a face shield configured to cover at least a portion of said face opening;
and
a plurality of magnetic elements disposed between said face shield and said chin bar to attach said face shield on said chin bar.

24. The head gear apparatus according to claim 23, wherein said chin bar is continuous from one side of said helmet to the other side of the helmet.

25. The head gear apparatus according to claim 23, wherein said plurality of magnetic elements includes:
at least a pair of magnetic elements supported on said chin bar, at least one each mounted on opposite sides of the wearer's head; and
a corresponding number of magnetic elements attached to said face shield and arranged to engage a corresponding one of said at least a pair of magnetic elements.

26. The head gear apparatus according to claim 25, wherein said face shield is aligned with said face opening when said plurality of magnets are engaged to said corresponding number of magnetic elements.

27. The head gear apparatus according to claim 25, wherein:
said at least a pair of magnetic elements are magnets supported on said chin bar; and

said corresponding number of magnetic elements are magnetically attracted slugs attached to said face shield.

28. A head gear apparatus comprising:

a helmet configured to be supported on the head of a wearer, said helmet including a chin bar extending adjacent the chin of the wearer when the helmet is supported on the head of the wearer, said helmet defining a face opening above said chin bar, said chin bar defining a slot; and

a face shield configured to cover at least a portion of said face opening, said face shield having a lower edge and a tab extending from said lower edge, said tab configured for engagement within said slot.

29. The head gear apparatus according to claim 28, wherein said chin bar is continuous from one side of said helmet to the other side of the helmet and said slot is defined substantially at the center of said chin bar.

30. The head gear apparatus according to claim 28, wherein said chin bar defines a forward-projecting lower ledge with said slot defined within said ledge, said ledge configured to support at least a portion of said lower edge of said face shield when said tab extends through said slot.

31. The head gear apparatus according to claim 28, wherein:
said face shield includes an upper edge opposite said lower edge; and
said helmet includes an upper ledge at an upper portion of said face opening, said upper ledge configured to receive at least a portion of said upper edge when said tab extends through said slot in said chin bar.

32. The head gear apparatus according to claim 27, further comprising a plurality of magnetic elements disposed between said face shield and said chin bar to attach said face shield to said chin bar.

33. The head gear apparatus according to claim 32, wherein said plurality of magnetic elements includes a plurality of magnetic elements attached to said face shield adjacent said lower edge and a corresponding plurality of magnetic elements supported by said chin bar.

34. A surgical garment system comprising:
a helmet configured to be supported on the head of a wearer;
a number of airflow passageways defined by said helmet to direct airflow across the body of the wearer;
a fan assembly including an inlet opening defined by said helmet and a fan supported by said helmet within said inlet opening to direct airflow through said number of airflow passageways;
a face shield supported on said helmet; and
a shroud attached to said face shield and sized and configured to cover at least said helmet, said shroud including a filter element positioned on said shroud to overlay said inlet opening and a portion of said helmet surrounding said inlet opening when said shroud is covering said helmet, said filter element defining an area greater than the area of said inlet opening when said filter element overlies said inlet opening and said helmet.

35. A head gear apparatus comprising:

a helmet configured to be supported on the head of a wearer, said helmet including a chin bar extending adjacent the chin of the wearer when the helmet is supported on the head of the wearer, said helmet defining a face opening above said chin bar; and

a face shield supported on said chin bar, said face shield sized to cover only a portion of said face opening;

said helmet including a rear portion supporting a fan, a ventilation conduit receiving airflow from said fan and projecting forward and cantilevered from said rear portion across the top of the wearer's head, and a pair of support struts connected to said ventilation conduit at the perimeter of said face opening, said support struts, ventilation conduit and rear portion defining rear openings above a portion of the wearer's head.

36. The head gear apparatus according to claim 1, further comprising an airflow adjustment mechanism configured to adjust the velocity of air flow traveling through said first one of said passageways, wherein:

an increase of the velocity of air flow traveling through said first one of said passageways with said airflow adjustment mechanism causes a decrease in the velocity of air flow traveling through said second one of said passageways.